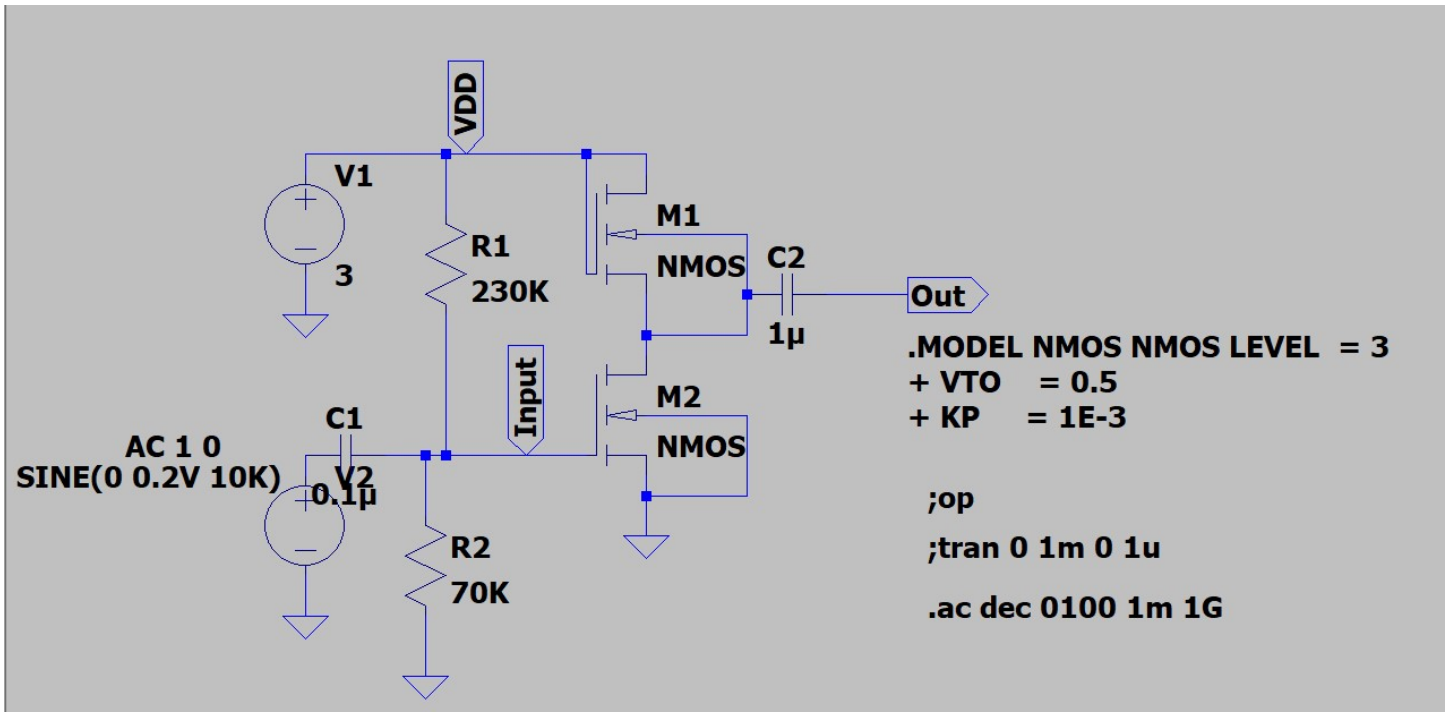
Question 2, LTSPICE MODEL:

DIAGRAM

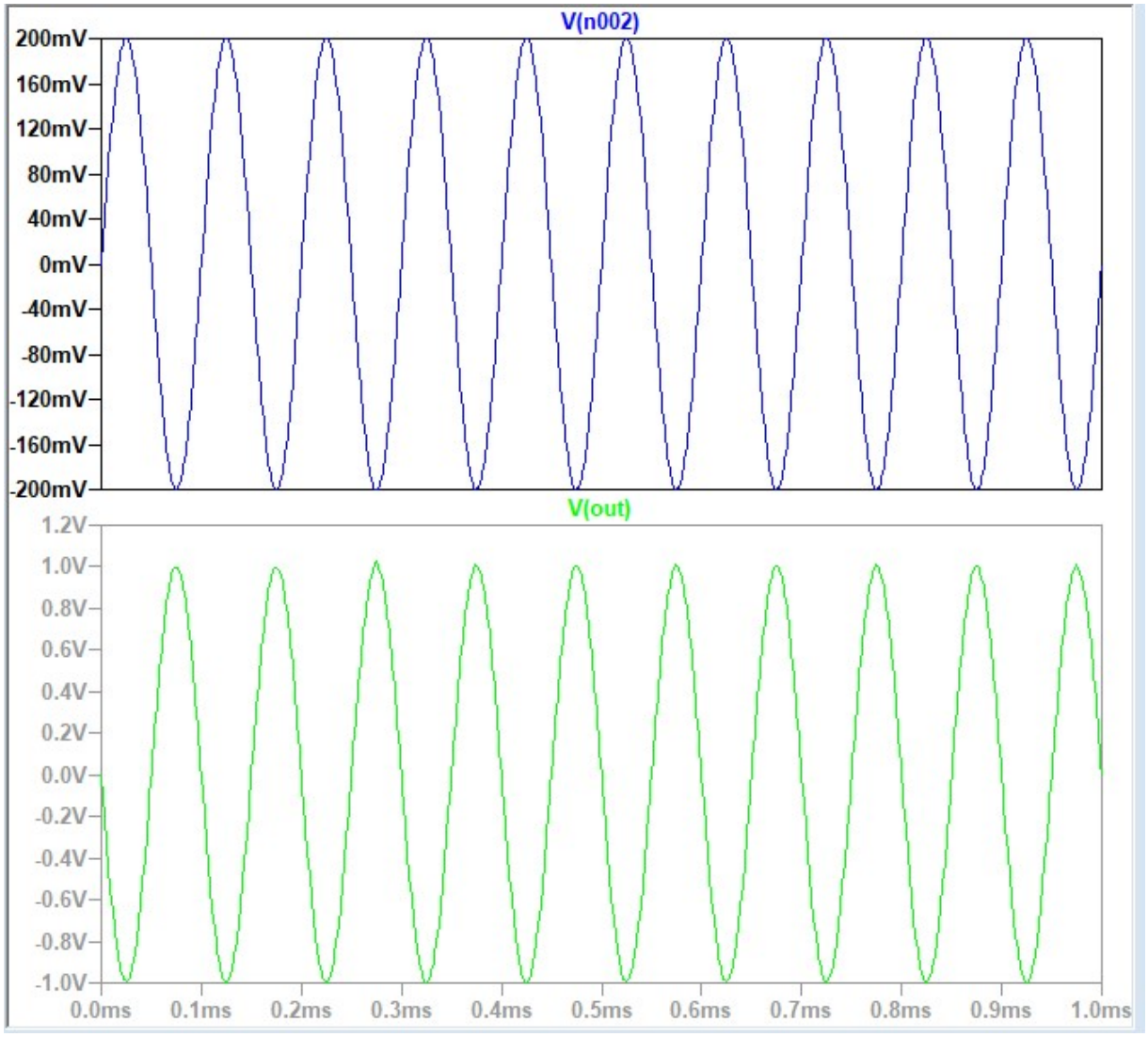


DC Operating point analysis:

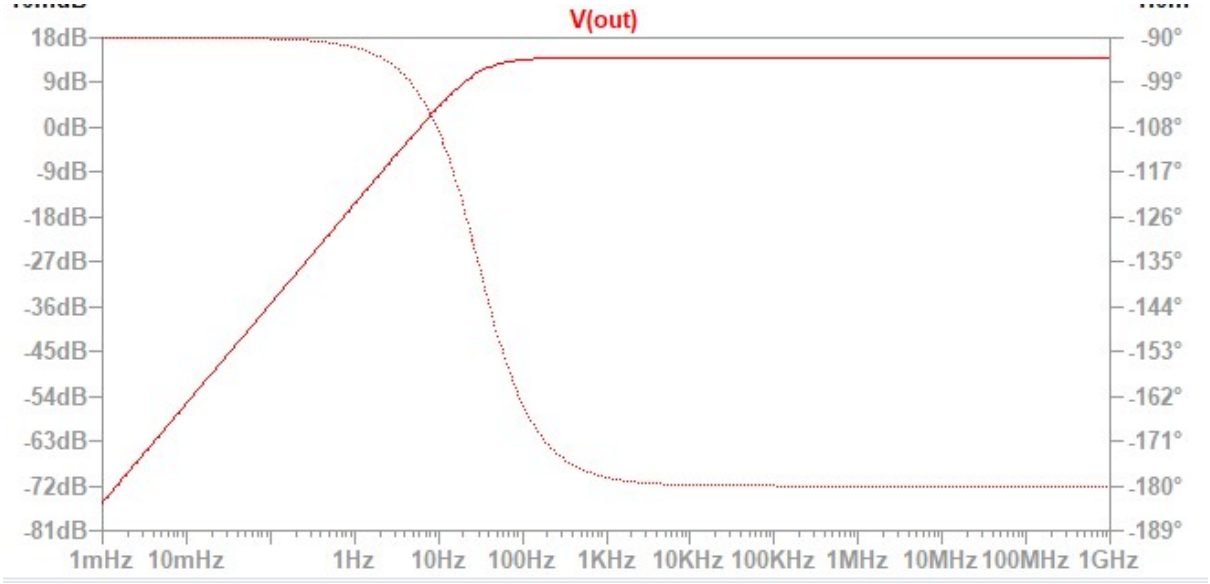
--- Operating Point ---

V(vdd):	3	voltage
V(n001):	1.5	voltage
V(input):	0.7	voltage
V(n002):	0	voltage
V(out):	1.5e-006	voltage
Id(M2):	0.001	device_current
Ig(M2):	0	device_current
Ib(M2):	-1.51e-012	device_current
Is(M2):	-0.001	device_current
Id(M1):	0.001	device_current
Ig(M1):	0	device_current
Ib(M1):	-1.51e-012	device_current
Is(M1):	-0.001	device_current
I(C2):	-1.5e-018	device_current
I(C1):	7e-020	device_current
I(R2):	1e-005	device_current
I(R1):	1e-005	device_current
I(V2):	7e-020	device_current
I(V1):	-0.00101	device_current

Transient Analysis:

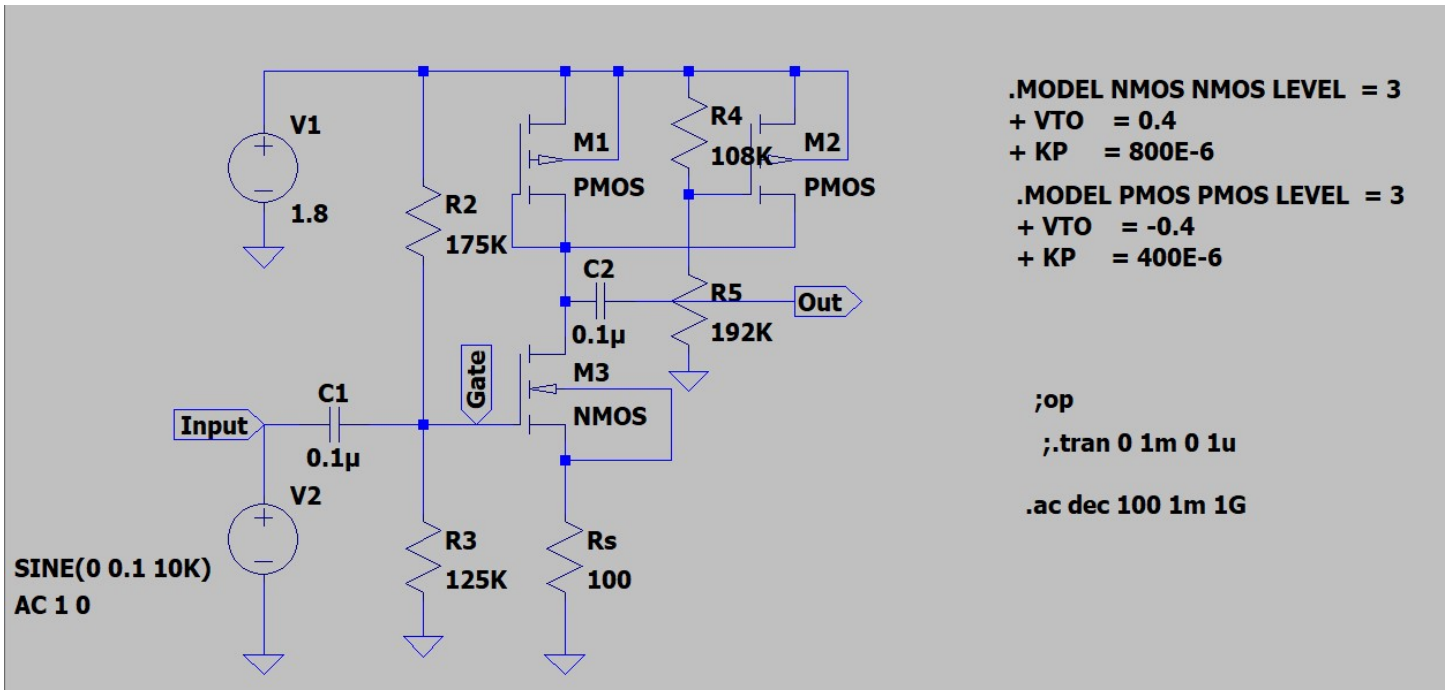


Gain and Phase:



Question 3, LTSPICE MODEL:

DIAGRAM

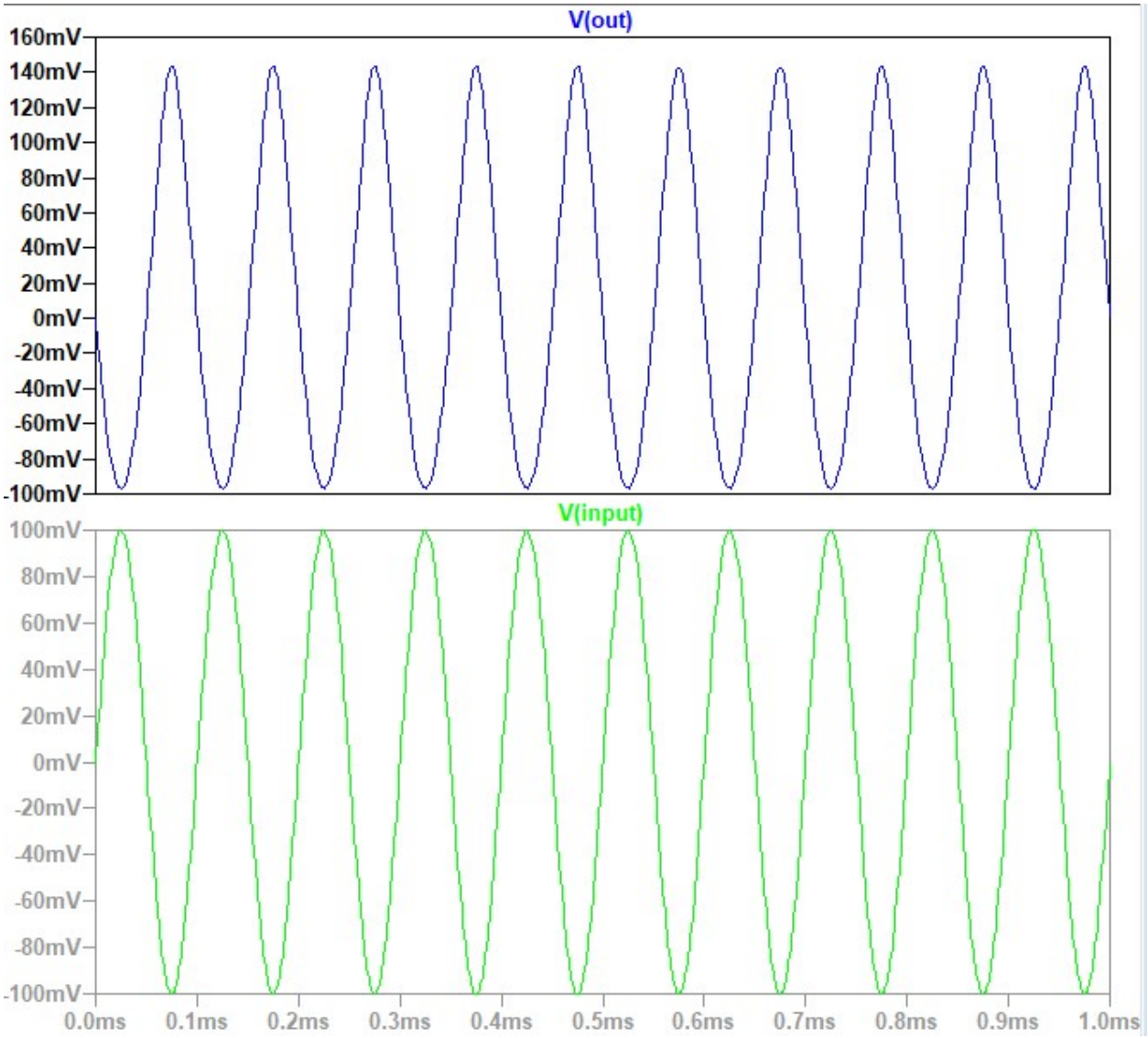


DC Operating point analysis:

--- Operating Point ---

V(n001):	1.8	voltage
V(n003):	1.14802	voltage
V(n002):	1.152	voltage
V(gate):	0.75	voltage
V(n004):	0.1	voltage
V(input):	0	voltage
V(out):	1.14802e-007	voltage
Id(M3):	0.001	device_current
Ig(M3):	0	device_current
Ib(M3):	-1.05802e-012	device_current
Is(M3):	-0.001	device_current
Id(M2):	0.000492032	device_current
Ig(M2):	-0	device_current
Ib(M2):	6.61985e-013	device_current
Is(M2):	-0.000492032	device_current
Id(M1):	0.000507971	device_current
Ig(M1):	-0	device_current
Ib(M1):	6.61985e-013	device_current
Is(M1):	-0.000507971	device_current
I(C2):	-1.14802e-019	device_current
I(C1):	7.5e-020	device_current
I(R5):	6e-006	device_current
I(R4):	6e-006	device_current
I(R3):	6e-006	device_current
I(R2):	6e-006	device_current
I(Rs):	0.001	device_current
I(V2):	7.5e-020	device_current

Transient Analysis:



Gain and Phase: